REMARKS/ARGUMENTS

This case has been carefully reviewed and analyzed in view of the final Office Action dated 20 October 2006. Responsive to that Office Action, Claims 12-15 have been canceled and Claim 11 is now amended for further prosecution with the other pending Claims. With such cancellation and amendment of Claims, there is a further clarification of the pending Claims' recitations.

In the final Office Action, the Examiner rejected Claims 7-15 under 35 U.S.C. § 103(a) as being unpatentable over Burrell, et al. in view of the Nieh, et al. reference. In setting forth this rejection, the Examiner acknowledged that Burrell, et al. fails to disclose sputtering of the first and second metal targets at the claimed voltage ranges and current ranges as well as a sputtering time ranging from 3-13 minutes. Additionally, the Examiner admitted that Burrell, et al. did not disclose metal particles of the second metal having a size of less than 100 nanometers, however, stated that it could be inferred from the Burrell, et al. reference that the method disclosed therein would form metal particles of a second metal having a size of less than 100 nanometers.

Prior to discussion of the prior art relied upon by the Examiner in the final Office Action; it is believed that it would be beneficial to briefly review the subject Application. The subject Application is directed to a method for making an anti-microbial sanitary ware in which the sanitary ware includes a metal particle-containing anti-microbial film. The method includes the steps of

simultaneously sputtering a first metal target of a first metal and a second metal target of a second metal through closed-field unbalanced magnetron sputtering techniques, forming a continuously closed magnetic field around the substrate, reacting the first metal into a metal compound and subsequently depositing the metal compound on the substrate thereby forming a protective layer, and generating metal particles of the second metal having a size of less than 100 nanometers and disbursing the metal particles in the protective layer.

In contradistinction, the Burrell, et al. reference discloses a process of activating anti-microbial materials. As the Examiner readily acknowledges, the Burrell, et al. reference does not disclose or suggest sputtering the first metal target at a voltage range of 20-50V, and a current ranging from 3.5-4.5A. Furthermore, as the Examiner also readily acknowledges, the Burrell, et al. reference does not disclose or suggest sputtering for the second metal target at a voltage of less than 20V, and a current ranging from 0.3-0.5A. Even beyond this, the Burrell, et al. reference does not disclose or suggest a sputtering time ranging from 3-13 minutes. Also note in this regard that while the Burrell, et al. reference discusses a detailed thickness of the metal coating in terms of microns and varies the thicknesses dependent on the "degree of metal ion release needed over a period of time", the reference remains silent with respect to the size of the "second metal."

The Nieh, et al. reference is deficient in its teachings much in the manner of the Burrell, et al. reference. The Nieh, et al. reference specifically states, "... the titanium targets 18 are biased at a power level ranging from about 400V and 2.5A to 1.5KV and 0. 5A, typically at a voltage of about 600V and 1.5A for a 2 inch diameter titanium target." As the Examiner noted, the reference further states that "other metals may require more power, but determination of the appropriate power level may be found in the technical literature." Using this statement, the Examiner reasons that one of ordinary skill in the art would know or could learn the proper power levels to use in order to optimally deposit a metal target onto a substrate with a given magnetron sputtering device. However, Applicant submits that both the Burrell, et al. and Nieh, et al. references go into great lengths and details disclosing specific voltages and temperatures along with sputtering pressures (noting the Examiner's discussion in rejecting Claims 7-15 with respect to the Burrell, et al. reference). Furthermore, Applicant specifically gives an example of the method as taught by the subject Patent Application, showing specific experimentation that Applicant has undergone to optimize the claimed method. Such cannot be summarily dismissed by a statement such as "may be found in technical literature."[1]

[1] The Nieh, et al. references discloses power levels in its sputter in process of about "400V" and "600V" and states that "other metals may require more power." Whereas, Applicant teaches voltage ranging from 20-50V and less than 20V for the second metal target. Even if the disclosure of the Nieh, et al. reference is stretched, such is for "more power" and would still fall well outside of any ranges as taught by Applicant.

As Applicant teaches specific details regarding its claimed method, such cannot be considered obvious without similar ranges and details disclosing such. Nowhere does the Nieh, et. al. reference state specifics about what the "technical literature" includes nor does it cite specific examples of such "literature". Simply stating that "technical literature" obviates claimed details ignores Applicant's example demonstrating its experimentation. Although a reference may be good not only for what it discloses by direct anticipation but also for what one of ordinary skill in the are might reasonably infer, it is respectfully submitted that stating information "found in technical literature" obviates claimed specifics is hardly what the Federal Circuit intended.

It is respectfully submitted, therefore, that the cited Burrell, et al. and Nieh, et al. references, even when considered together, fail to disclose the unique combination of features now more clearly recited by Applicant's pending Claims for the purposes and objectives disclosed in the subject Patent Application.

It is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

No fees are believed to be due with this Amendment After Final Office Action. If there are any charges associated with this filing, the Honorable Commissioner for Patents is hereby authorized to charge Deposit Account #18-2011 for such charges.

Respectfully submitted,
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Rajiv S. Shah